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WHAT IS CLAIMED IS:

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1. A method of providing access to a bus, comprising:  
receiving a request for access to the bus;  
selecting the request according to a priority  
5 associated with the request;  
generating a control signal in response to selection  
of the request;  
enabling access to the bus associated with the  
selected request in response to the control signal.

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2. The method of Claim 1, wherein the bus is a PCI  
bus.  
3. The method of Claim 2, wherein the PCI bus  
15 operates at a frequency of at least 66 MHZ.  
4. The method of Claim 1, wherein the request is  
received from a device desiring to communicate over the  
bus.

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5. The method of Claim 1, further comprising:  
receiving a plurality of access requests for the bus,  
each of the plurality of access requests being received  
from one of a plurality of devices coupled to the bus;

5 selecting a particular one of the plurality of access  
requests according to a predetermined priority protocol;

generating a control signal corresponding to the  
selected particular one of the plurality of access  
requests;

10 providing the control signal to a particular one of  
the plurality of devices that sent the selected particular  
one of the plurality of access requests, the control signal  
enabling the particular one of the plurality of devices to  
access the bus.

15 6. The method of Claim 5, further comprising:  
selecting a next one of the plurality of access

requests according to the predetermined priority protocol;

20 generating a control signal corresponding to the  
selected next one of the plurality of access requests;

providing the control signal to a next one of the  
plurality of devices that sent the selected next one of the  
plurality of access requests, the control signal enabling  
the next one of the plurality of devices to access the bus  
25 prior to an end of access to the bus for the particular one  
of the plurality of devices.

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30 7. The method of Claim 6, further comprising:  
determining an end of access to the bus for the  
particular one of the plurality of devices;

initiating access to the bus by the next one of the  
plurality of devices in response to the end of access to  
the bus for the particular one of the plurality of devices.

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8. The method of Claim 7, further comprising:

generating a disabling control signal in response to the end of access to the bus for the particular one of the plurality of devices;

5 preventing the particular one of the plurality of devices from accessing the bus in response to the disabling control signal.

9. The method of Claim 1, further comprising:

10 limiting a number of generated control signals in order to control a load on the bus.

10. The method of Claim 1, further comprising:

15 generating a disable control signal for a request not selected in order to disable access to the bus.

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11. A system for providing access to a bus, comprising:

a bus controller;

20 a plurality of processing devices coupled to the bus controller by a bus;

a plurality of enabling switches on the bus, each enabling switch coupled to a corresponding processing device, each enabling switch providing access to the bus for its corresponding processing device in response to a control signal from the bus controller.

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30 12. The system of Claim 11, wherein the bus controller allows simultaneous access to the bus by a predetermined number of the plurality of processing devices in order to limit a load on the bus.

14. The system of Claim 13, Wherein the bus controller arbitrates the plurality of access requests from the plurality of processing devices according to a predetermined protocol.

16. The system of Claim 15, wherein the PCI bus operates at a frequency of approximately 66 MHZ.

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pass

19. The PCI bus of Claim 17, wherein a particular  
pass transistor is operable to disable bus access for its  
30 associated processing device such that the particular  
processing device does not appear to be coupled to the PCI  
bus.

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20. The PCI bus of Claim 17, wherein each of the processing devices is operable to communicate at a 66 MHZ rate.

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